

CLAIMS

I CLAIM:

1. A method of forming a meltable material at a joint between
telescopingly engaged male and female elements with the female element having
a joint surface that surrounds a joint surface on the male element, said method
comprising the steps of:

placing a ring of the meltable material around one of the male and
female elements at a first location spaced from the joint;

heating the male and female elements at the joint to a temperature
at which the meltable material melts;

sliding the ring of meltable material from the first location to a second
location;

with the ring of meltable material at the second location and the male
and female elements at the joint at a temperature at which the meltable material
melts, causing the meltable material to flow between the male and female joint
surfaces; and

cooling the male and female elements at the joint to solidify the
meltable material between the male and female joint surfaces.

2. The method of forming a meltable material at a joint between
telescopingly engaged male and female elements according to claim 1 wherein the
male and female elements are heated at the joint to a temperature at which the
meltable material melts before the ring of meltable material is moved from the first
location to the second location.

3. A method of forming a meltable material at a joint between
telescopingly engaged male and female elements according to claim 1 wherein the
meltable material is placed around the male element at the first location.

4. The method of forming a meltable material at a joint between
telescopingly engaged male and female elements according to claim 1 wherein the
step of placing a ring of the meltable material around one of the male and female
elements comprises bending a piece of the meltable material around the one of
the male and female elements.

5. The method of forming a meltable material at a joint between
telescopingly engaged male and female elements according to claim 1 wherein the
step of placing a ring of the meltable material around one of the male and female
elements comprises directing the one of the male and female elements through
a preformed ring of the meltable material.

6. The method of forming a meltable material at a joint between
telescopingly engaged male and female elements according to claim 1 wherein the
ring of meltable material extends continuously through 360°.

7. The method of forming a meltable material at a joint between
telescopingly engaged male and female elements according to claim 1 wherein the
ring of meltable material comprises a formed piece of wire with spaced ends.

2 8. The method of forming a meltable material at a joint between
telescopingly engaged male and female elements according to claim 1 wherein the
ring of meltable material extends through at least 330°.

2 9. The method of forming a meltable material at a joint between
telescopingly engaged male and female elements according to claim 1 wherein the
meltable material comprises solder.

2 10. The method of forming a meltable material at a joint between
telescopingly engaged male and female elements according to claim 9 wherein the
male and female elements each comprise one of a piece of pipe and a pipe fitting.

2 11. A method of forming a meltable material at a joint between
telescopingly engaged male and female elements with the female element having
a joint surface that surrounds a joint surface on the male element, said method
4 comprising the steps of:

6 placing a ring of the meltable material around the male element at
the joint but not fully within the female element;

8 heating the male and female elements at the joint to a temperature
at which the meltable material melts;

10 causing the melted meltable material to flow between the male and
female elements; and

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Cooling the male and female elements at the joint to solidify the
meltable material between the male and female joint surfaces.

2 12. The method of forming a meltable material at a joint between
telescopingly engaged male and female elements according to claim 11 wherein
4 the step of placing a ring of the meltable material around one of the male and
female elements comprises bending a piece of the meltable material around the
one of the male and female elements.

2 13. The method of forming a meltable material at a joint between
telescopingly engaged male and female elements according to claim 11 wherein
4 the step of placing a ring of the meltable material around one of the male and
female elements comprises directing the one of the male and female elements
through a preformed ring of the meltable material.

2 14. The method of forming a meltable material at a joint between
telescopingly engaged male and female elements according to claim 11 wherein
the ring of meltable material extends continuously through 360°.

2 15. The method of forming a meltable material at a joint between
telescopingly engaged male and female elements according to claim 11 wherein
the ring of meltable material comprises a formed piece of wire with spaced ends.

2 16. A method of making a connection between male and female
elements, with the female element having an internal joint surface and the male
element having an external joint surface, said method comprising the steps of:

4 providing a ring of meltable material;

6 directing one of the male and female elements through the ring of
meltable material;

8 after directing the one of the male and female elements through the
ring of meltable material, directing the male element into the female element so
that the female joint surface surrounds the male joint surface;

10 heating the male and female joint surfaces to a temperature at which
the meltable material melts;

12 causing the melted meltable material to flow between the male and
female joint surfaces; and

14 cooling the male and female joint surfaces to solidify the meltable
material between the male and female joint surfaces.

2 17. The method of making a connection between male and female
elements according to claim 16 further comprising the steps of placing the ring of
meltable material at a first location spaced from the female element as the male
4 and female joint surfaces are heated and after heating the male and female joint
surfaces to a temperature at which the meltable material melts sliding the ring of
6 meltable material from the first location to a second location at which melted
meltable material can flow between the male and female joint surfaces.

2 18. The method of making a connection between male and female elements according to claim 16 wherein the ring of meltable material extends continuously through 360°.

2 19. The method of making a connection between male and female elements according to claim 16 wherein the ring of meltable material comprises a formed piece of wire with spaced ends.

2 20. The method of making a connection between male and female elements according to claim 16 wherein the male and female elements each comprise one of a piece of pipe and a pipe fitting.

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